

ABSTRACT

The invention provides polishing pads for chemical-mechanical polishing comprising a porous foam and a method for their production. In one embodiment, the porous foam has an average pore size of about 50 μm or less, wherein about 75% or more of the pores have a pore size within about 20 μm or less of the average pore size. In another embodiment, porous foam has an average pore size of about 20 μm or less. In yet another embodiment, the porous foam has a multi-modal pore size distribution. The method of production comprises (a) combining a polymer resin with a supercritical gas to produce a single-phase solution and (b) forming a polishing pad from the single-phase solution, wherein the supercritical gas is generated by subjecting a gas to an elevated temperature and pressure.